Amendment to the Claims

Kindly amend claims 1-4, 8, 10-11, 15, 17-18, 22 and 24 and add claim 25, as set forth below. In compliance with the Revised Amendment Format published in the Official Gazette on February 25, 2003, a complete listing of claims is provided herein. The changes in the amended claims are shown by strikethrough (for deleted matter) and underlining (for added matter).

1.   (Currently Amended) A method of serializing replicated transactions in a distributed computing environment, said method comprising:

initiating a modification operation on a replicated resource of a distributed computing environment;

during a phase of said modification operation, detecting whether a conflict for said replicated resource exists; and

satisfying said conflict, if said conflict exists, without requiring ~~explicit~~ locking of said replicated resource.

2.   (Currently Amended) A system of serializing replicated transactions in a distributed computing environment, said system comprising:

means for initiating a modification operation on a replicated resource of a distributed computing environment;

means for detecting whether a conflict for said replicated resource exists, during a phase of said modification operation; and

means for satisfying said conflict, if said conflict exists, without requiring ~~explicit~~ locking of said replicated resource.

3.   (Currently Amended) At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method of serializing replicated transactions in a distributed computing environment, said method comprising:

initiating a modification operation on a <u>replicated</u> resource of a distributed computing environment;

during a phase of said modification operation, detecting whether a conflict for said <u>replicated</u> resource exists; and

satisfying said conflict, if said conflict exists, without requiring ~~explicit~~ locking of said <u>replicated</u> resource.

4.   (Currently Amended) The method of claim 1, wherein the modification operation comprises a plurality of phases, and wherein the detecting comprises detecting whether a conflict for the <u>replicated</u> resource exists during a first phase of the modification operation.

5.   (Previously Presented) The method of claim 4, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the first phase proceeds in parallel with respect to the plurality of members.

6.   (Previously Presented) The method of claim 4, wherein the satisfying comprises satisfying the conflict during a second phase of the modification operation.

7.   (Previously Presented) The method of claim 6, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the second phase proceeds serially with respect to at least some of the plurality of members in order to satisfy the conflict.

8.   (Currently Amended) ~~The method of claim 7, wherein the satisfying comprises at least one of the at least some of the plurality of members withholding information in order for the second phase to proceed serially.~~ <u>A method of serializing replicated transactions in a distributed computing environment, said method comprising:</u>

<u>initiating a modification operation on a resource of a distributed computing environment, the distributed computing environment comprising a processing group with a plurality of members, and wherein the modification operation comprises a plurality of phases;</u>

during a first phase of said modification operation, detecting whether a conflict for said resource exists; and

satisfying said conflict, if said conflict exists, without requiring explicit locking of said resource, wherein the satisfying comprises satisfying the conflict during a second phase of the modification operation, wherein the second phase proceeds serially with respect to at least some of the plurality of members in order to satisfy the conflict and wherein the satisfying comprises at least one of the at least some of the plurality of members withholding information in order for the second phase to proceed serially.

9.   (Previously Presented) The method of claim 8, wherein the information comprises an acknowledgement.

10.   (Currently Amended) The method of claim 1, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the detecting comprising comparing requests for the replicated resource from at least some of the plurality of members.

11.   (Currently Amended) The system of claim 2, wherein the modification operation comprises a plurality of phases, and wherein the means for detecting comprises means for detecting whether a conflict for the replicated resource exists during a first phase of the modification operation.

12.   (Previously Presented) The system of claim 11, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the first phase proceeds in parallel with respect to the plurality of members.

13.   (Previously Presented) The system of claim 11, wherein the means for satisfying comprises means for satisfying the conflict during a second phase of the modification operation.

14.   (Previously Presented) The system of claim 13, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the second phase proceeds serially with respect to at least some of the plurality of members in order to satisfy the conflict.

15.   (Currently Amended) ~~The system of claim 14, wherein the means for satisfying comprises means for at least one of the at least some of the plurality of members withholding information in order for the second phase to proceed serially.~~ A system of serializing replicated transactions in a distributed computing environment, said system comprising:

means for initiating a modification operation on a resource of a distributed computing environment, the distributed computing environment comprising a processing group with a plurality of members, and wherein the modification operation comprises a plurality of phases;

means for detecting whether a conflict for said resource exists, during a first phase of said modification operation; and

means for satisfying said conflict, if said conflict exists, without requiring explicit locking of said resource, wherein the means for satisfying comprises means for satisfying the conflict during a second phase of the modification operation, wherein the second phase proceeds serially with respect to at least some of the plurality of members in order to satisfy the conflict and wherein the means for satisfying comprises means for at least one of the at least some of the plurality of members withholding information in order for the second phase to proceed serially.

16.   (Previously Presented) The system of claim 15, wherein the information comprises an acknowledgement.

17.   (Currently Amended) The system of claim 2, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the means for detecting comprising means for comparing requests for the replicated resource from at least some of the plurality of members.

18.   (Currently Amended) The at least one program storage device of claim 3, wherein the modification operation comprises a plurality of phases, and wherein the detecting comprises detecting whether a conflict for the replicated resource exists during a first phase of the modification operation.

19.   (Previously Presented) The at least one program storage device of claim 18, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the first phase proceeds in parallel with respect to the plurality of members.

20.   (Previously Presented) The at least one program storage device of claim 18, wherein the satisfying comprises satisfying the conflict during a second phase of the modification operation.

21.   (Previously Presented) The at least one program storage device of claim 20, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the second phase proceeds serially with respect to at least some of the plurality of members in order to satisfy the conflict.

22.   (Currently Amended) ~~The at least one program storage device of claim 21, wherein the satisfying comprises at least one of the at least some of the plurality of members withholding information in order for the second phase to proceed serially.~~ At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method of serializing replicated transactions in a distributed computing environment, said method comprising:

      initiating a modification operation on a resource of a distributed computing environment, the distributed computing environment comprising a processing group with a plurality of members, and wherein the modification operation comprises a plurality of phases;

      during a first phase of said modification operation, detecting whether a conflict for said resource exists; and

      satisfying said conflict, if said conflict exists, without requiring explicit locking of said resource, wherein the satisfying comprises satisfying the conflict during a second phase of the modification operation, wherein the second phase proceeds serially with respect to at least some of the plurality of members in order to satisfy the conflict and wherein the satisfying comprises at least one of the at least some of the plurality of members withholding information in order for the second phase to proceed serially.

23. (Previously Presented) The at least one program storage device of claim 22, wherein the information comprises an acknowledgement.

24. (Currently Amended) The at least one program storage device of claim 3, wherein the distributed computing environment comprises a processing group with a plurality of members, and wherein the detecting comprising comparing requests for the replicated resource from at least some of the plurality of members.

25. (New) The method of claim 1, wherein the satisfying comprises using a two-phase commit to satisfy the conflict.